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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,909	09/14/2006	Junkuan Wang	3712036-00753	1906
29157	7590	12/02/2009		
K&L Gates LLP P.O. Box 1135 CHICAGO, IL 60690			EXAMINER MI, QIUWEN	
			ART UNIT 1655	PAPER NUMBER
			NOTIFICATION DATE 12/02/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

# Office Action Summary

**Application No.**

10/598,909

**Applicant(s)**

WANG ET AL.

**Examiner**

QIUWEN MI

**Art Unit**

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 and 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-14, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **CONTINUED EXAMINATIONS**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/2/09 has been entered.

Applicant's amendment and declaration filed on 9/8/09 are acknowledged. Claims 1-21 are pending. Claims 9-11, and 15-19 are withdrawn as they are directed toward non-elected invention groups. **Claims 1-8, 12-14, 20, and 21 are examined on the merits.**

The Declaration and the amendment are sufficient to overcome the 102/103 rejection sent out on 4/7/2009. However, upon further consideration, a new ground(s) of rejection is made in view of Osanai.

Any rejection that is not reiterated is hereby withdrawn.

### **Claim Objections**

Claims 2, 3, and 13 are objected to because of the following informalities:

Claim 2 recites "The primary composition according to claim 1, wherein the material is in a form selected from the group consisting of vegetables, leaves, flowers, fruits, seeds and other parts of the plant, and combinations thereof". Claim 3 recites "The primary composition according to claim 1, wherein the material is selected from the group consisting of a berry,

vegetables, seeds, flowers, citrus fruits, tomato, spinach, celery, carrots, pea, kale, parsley, watercress, cabbage, broccoli, lettuce, brussels sprouts, collard greens, turnip greens, fennel, onions, tea, corn, cocoa, coffee, thyme, sweet red pepper, and combinations thereof'. However, "vegetables, leaves, flowers, fruits, seeds" in claim 2 overlaps in concept. For instance, spinach belongs to both vegetable and leaves; and broccoli belongs to both vegetable and flower; and pea belongs to both vegetable and seeds.

Claim 13 recites "An oral composition according to claim 12, which is a form selected from the group consisting of a nutritional complete formula, a dairy product, a chilled or shelf stable beverage, a mineral or purified water, a liquid drink, a soup, a dietary supplement, a meal replacement, a nutritional bar, a confectionery, a milk or a fermented milk product, a yoghurt, a milk based powder, an enteral nutrition product, an infant formula, an infant nutritional product, a cereal product or a fermented cereal based product, an ice-cream, a chocolate, coffee, a culinary product such as mayonnaise, tomato puree, salad dressings, a pet food, and combinations thereof". However, a dairy product includes a milk or a fermented milk product, a yoghurt, a milk based powder, and an ice-cream; a nutritional bar is a dietary supplement; a mineral or purified water is a liquid drink.

### **Claim Rejections –35 USC § 112, 2<sup>nd</sup>**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites "The primary composition according to claim 4, comprising flavonoids selected from the group consisting of flavones, flavonols, flavanones, catechins, anthocyanidins, isoflavones, and combinations thereof". Since flavonoid falls into the category of polyphenolic compounds, claim 4 recites "polyphenolic compound", but not flavonoid, it is not clear whether claim 5 further comprising flavonoids or the flavonoid is only one component of the Markush group in claim 4.

Regarding claim 13, the phrase "such as" (line 7) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Therefore, the metes and bounds of claims are rendered vague and indefinite. The lack of clarity renders the claims very confusing and ambiguous since the resulting claims do not clearly set forth the metes and bounds of the patent protection desired.

All other cited claims depend directly or indirectly from rejected claims and are, therefore, also, rejected under U.S.C. 112, second paragraph for the reasons set forth above.

#### **Claim Rejections –35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 12-14, 20, and 21 are rejected under 35 USC § 102 (b) as being anticipated by Osanai (JP 09107880 A), as evidenced by Edenharder et al (Edenharder et al, Isolation and characterization of structurally novel antimutagenic flavonoids from spinach (*Spinacia oleracea*), Journal of agricultural and food chemistry, (2001 Jun) Vol. 49, No. 6, pp. 2767-73)\*, and as further evidenced by Faulks et al (Faulks et al, Kinetic of gastro-intestinal transit and carotenoid absorption and disposal in ileostomy volunteers fed spinach meals, Eur J Nutr (2004) 43: 15-22), and Hovari et al (Hovari et al, Examination of flavonoid content in Hungarian Vegetables, Special Publication - Royal Society of Chemistry (1999), 240(Natural Antioxidants and Anticarcinogens in Nutrition, Health and Disease), 296-298).

Osanai teaches to produce a suitably producible cow's milk (thus milk from animal origin, thus a carrier) at a low cost by using a widely used vegetable, capable of enriching iron, enhancing hematopoietic actions, further containing various vitamins or minerals blended in good balance and effective against various symptoms of anemia, constipation or climacteric disturbance of women (thus a food, thus an oral composition). This cow's milk contains a vegetable and is obtained by adding about 12.5 g KOMATSU-NA [*Brassica campestris* (rapa group)], about 2.5 g spinach (thus a vegetable, thus a leave), about 2.5 g total amount of mulukkiyya, parsley, water cress and beefsteak plant, 22.5 g lemon (thus a fruit) and 2.5 g reducing palatinose with about 150cc cow's milk. Furthermore, the cow's milk containing the

vegetable is prepared by placing about 12.5 g KOMATSU-NA, about 2.5 g spinach and about 2.5 g total amount of mulukkiyya, parsley, water cress and beefsteak plant based on 10 cc cow's milk in a mixer, pulverizing (thus milling in milk) and mixing the ingredients, adding about 22.5 g lemon and about 2.5 g reducing palatinose thereto and further adding cow's milk thereto so as to make the sum total to 200 cc (thus a liquid, thus a miscible primary composition). Therefore, the reference is deemed to anticipate the instant claim above (see Abstract, the rejection is based on the Abstract, the full translation is attached).

As evidenced by Edenharder et al, spinach contains carotenoids (thus a hydrophilic bioactive component) and flavonoids such as flavonol and flavanone (thus a lipophilic bioactive component) (see Abstract), therefore, the milk product of Osanai that contains spinach contains at least essential lipophilic and hydrophilic bioactive components consisting of vegetable etc.

As further evidenced by Faulks et al, spinach contains beta-carotene (thus a hydrophilic bioactive component) (see Abstract).

As also evidenced by Hovari et al, the highest quercetin concentration could be detected in different types of onion (67.1-171.3 mg/kg) and in spinach (page 296, last paragraph) (thus the limitation of claim 21 is met).

\*This reference is cited merely to relay an intrinsic property and is not used in the basis for rejection *per se*.

### **Conclusion**

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QM

/Michele Flood/

Primary Examiner, Art Unit 1655